

CASE 1374: Western Natural Gas Co. applica-  
tion for oil-oil dual of its Wimberley #3,  
Sec. 24-25S-37E.

Case No.

1374

Application, Transcript,  
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION  
P. O. BOX 871  
SANTA FE, NEW MEXICO

February 14, 1958

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P  
Y

Mr. Howard McKay  
Western Natural Gas Company  
823 Midland Tower  
Midland, Texas

Dear Mr. McKay:

We enclose two copies of Orders R-1122 and R-1123 issued February 12, 1958, by the Oil Conservation Commission in Cases 1374 and 1375, respectively, which were heard on January 29th at Santa Fe.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encls.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF THE STATE OF NEW  
MEXICO FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 1374  
Order No. R-1122

APPLICATION OF WESTERN NATURAL  
GAS COMPANY FOR AN OIL-OIL DUAL  
COMPLETION IN AN UNDESIGNATED  
FUSSELMAN POOL AND AN UNDESIGNATED  
DRINKARD POOL IN LEA COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 29, 1958, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 12<sup>th</sup> day of February, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Western Natural Gas Company, is the owner and operator of the Wimberley No. 3 Well, located 680 feet from the North line and 680 feet from the West line of Section 24, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to dually complete the said Wimberley Well No. 3 in such a manner as to permit the production of oil from an undesignated Fusselman Pool and to permit the production of oil from an undesignated Drinkard Pool through parallel strings of tubing.

(4) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(5) That approval of the subject application will not cause waste nor impair correlative rights.

(6) That the subject application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Western Natural Gas Company, be and the same is hereby authorized to dually complete its Wimberley Well No. 3, located 660 feet from the North line and 660 feet from the West line of Section 24, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Fusselman pool and to permit the production of oil from an undesignated Drinkard pool through parallel strings of tubing.

PROVIDED HOWEVER, That subject well shall be completed and thereafter produced in such a manner that there will be no commingling within the well-bore, either within or outside the casing, of gas, oil and gas, or oil produced from either or both of the separate strata,

PROVIDED HOWEVER, That prior to the actual dual completion the operator shall make pressure tests of the casing to prove that no casing leaks exist. In the event a casing leak is apparent the operator shall take appropriate steps to adequately repair the leak. The results of these tests shall be reported to the Commission on Form C-103.

PROVIDED FURTHER, That upon the actual dual completion of such subject well applicant shall submit to the appropriate District Office of the Commission copies of Oil Conservation Commission Form C-103, Form C-104, Form C-110, and Form C-122, outlining the information required on those forms by existing Rules and Regulations, and two copies of the electric log of the well.

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used at any time as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil or gas-liquid ratio thereof determined, and

PROVIDED FURTHER, That the operator shall make any and all tests, including segregation and packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Fusselman zone commencing in the year 1959, and whenever the packer is disturbed, but not excluding any other tests and/or determinations as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of offset operators if any there be at their election, and the results of each test, properly attested to by the applicant herein and all witnesses, shall be filed with the Commission within fifteen (15) days after the completion of such tests, and further, that applicant shall file with the Commission in duplicate a packer-setting affidavit, which affidavit shall be due within fifteen (15) days of the dual completion or whenever the packer is disturbed, and

-3-

Case No. 1374  
Order No. R-1122

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas-oil ratio or gas-liquid ratio, and reservoir pressure determination for each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



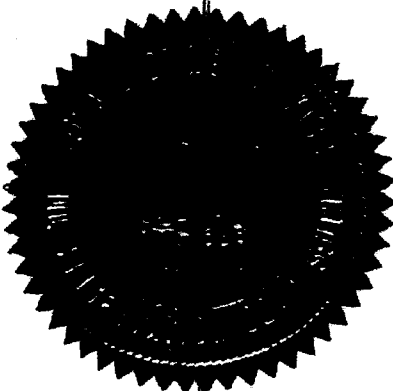
EDWIN L. MECHEM, Chairman



MURRAY E. MORGAN, Member



A. L. PORTER, Jr., Member & Secretary



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DOMESTIC SERVICE	
Check the class of service desired, otherwise this message will be sent as a fast telegram	
TELEGRAM	
DAY LETTER	
NIGHT LETTER	

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# WESTERN UNION TELEGRAM

1206 (4-55)

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE	
Check the class of service desired, otherwise the message will be sent at the full rate	
FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED
	COLLECT			8:15 a.m.

Send the following message, subject to the terms on back hereof, which are hereby agreed to

FEBRUARY 14, 1958

HOWARD MC COY  
WESTERN NATURAL GAS CO.  
823 MIDLAND TOWER  
MIDLAND, TEXAS

ORDERS IN CASES 1374 AND 1375 SIGNED FEBRUARY 12TH APPROVING APPLICATIONS  
AS FILED.

A. L. PORTER, JR.  
OIL CONSERVATION COMMISSION

NEW MEXICO  
OIL CONSERVATION COMMISSION  
P. O. Box 871  
Santa Fe, New Mexico

Date January 13, 1958

Mr. R. H. McKay  
Western Natural Gas Company  
823 Midland Tower Building  
Midland, Texas

Gentlemen:

Your application for an oil-oil dual completion in the Eueselman and  
Drinkard formations underlying the NW/4 NW/4 of Section 24, Township 25 South,  
Range 37 East, NMPH, Lea County, New Mexico,

dated January 7, 1958 has been received, and has been tentatively  
scheduled for hearing before an examiner on  
January 29, 1958.

A copy of the docket will be forwarded to you as soon as the matter is  
advertised.

Very truly yours,

*A. L. Porter, Jr.*  
A. L. PORTER, Jr.,  
Secretary-Director

ga

*Copy to Mr. H. H. H. 1-16-58*

[illegible]

Houston 2, Texas

ADDRESS CORRESPONDENCE TO  
823 MIDLAND TOWER BUILDING  
MIDLAND, TEXAS

WESTERN NATURAL GAS COMPANY

cc: P. C. Wright

R. OLSEN OIL COMPANY

2805 LIBERTY BANK BUILDING

OKLAHOMA CITY, OKLA.

January 17, 1958

CARL I. OLSEN,  
PRESIDENT  
PHILIP RANDOLPH,  
VICE-PRESIDENT  
JACK L. NEVILLE,  
TREASURER

Western Natural Gas Company  
823 Midland Tower Building  
Midland, Texas

Attention: Mr. R. H. McKoy

Gentlemen:

Please consider this as a waiver of any objections to the dually completing of your Wimberley #3 well located 660' from the North line and 660' from the West line of Section 24-25S-37E, subject dual completion to be in the Drinkard and Fusselman formations.

Very truly yours,

R. OLSEN OIL COMPANY

By

  
Philip Randolph

PR:if

cc: Mr. Olsen  
Mr. Neville

# Western Natural Gas Company

1006 MAIN STREET

Houston 2, Texas

January 7, 1958

ADDRESS CORRESPONDENCE TO  
823 MIDLAND TOWER BUILDING  
MIDLAND, TEXAS

New Mexico Oil Conservation Commission  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Western Natural Gas Company respectfully requests a hearing on its application for permission to dually complete applicant's Wimberley #3, undesignated pool in the Fusselman and Drinkard Reservoirs, Unit D, Section 24, 25-S, 37-E, Lea County, New Mexico, and in support states:

1. Western's Wimberley well #3 is located 660' from the North line and 660' from the West line of Section 24, T-25-S, R-37-E, Lea County, New Mexico.
2. Subject well was drilled to a total depth of 8635'. Salt water was encountered on drill stem test in the Ellenburger Formation. A 200 sack cement plug was spotted in the open hole from 8550-8000'. A McCullough open hole bridge plug was set at 7400'. Ran 7" casing to 7375' with cement back to 4195'. There was 13 3/8" casing set at 527' and 9 5/8" casing set at 3400'. Cement circulated on both strings.
3. Drill stem tests of the Fusselman and Drinkard zones indicate that commercial production can be obtained and that both zones can be adequately segregated.

4. Subject well will be perforated and equipped as indicated on the attached schematic diagram.
5. It is the opinion of the applicant that the manner and method proposed for the dual completion of this well is mechanically feasible and practical, and is in the interest of conservation and the protection of correlative rights.
6. The applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pay zones.
7. A plat is attached showing the location of the well and the offset ownership.
8. By copy of this letter and attachments all offset operators are notified of the proposed dual completion.

Respectfully submitted,

WESTERN NATURAL GAS COMPANY

*R. H. McKoy*

R. H. McKoy  
Division Superintendent

STATE OF TEXAS

COUNTY OF MIDLAND

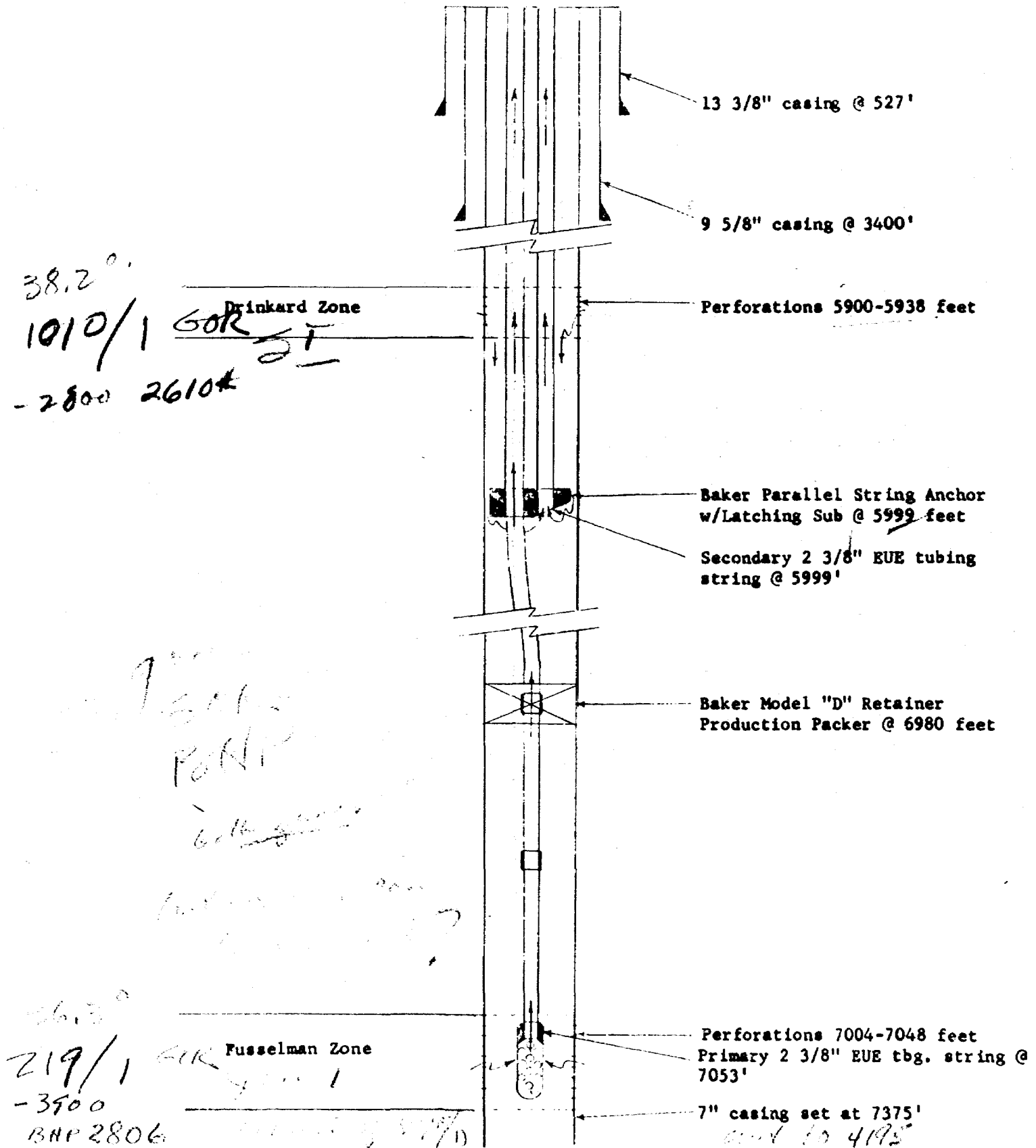
On this 7th day of January, 1958, before me personally appeared R. H. McKoy, to me known to be the person who executed the foregoing letter and states that the foregoing statements are true to the best of his knowledge and belief.

In Witness Whereof, I have set my hand and seal on the day and year first above written.

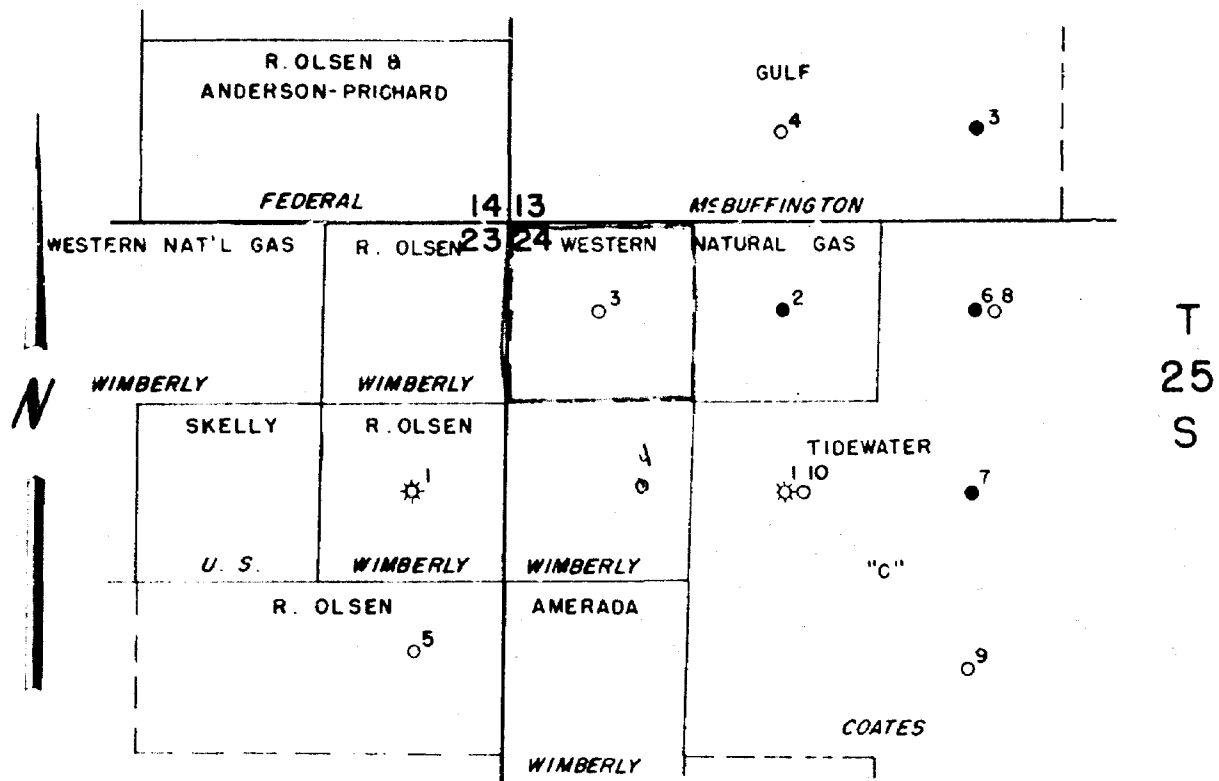
*John B. Thomas*  
Notary Public in and for Midland  
County, State of Texas

My Commission Expires  
June 1, 1959

WESTERN NATURAL GAS COMPANY  
WIMBERLEY #3  
Dual completion showing single-packer,  
Full-Opening parallel string hookup,  
Short string anchored



R 37 E



LEA COUNTY  
NEW MEXICO

MAILING LIST

Gulf Oil Corporation  
P.O. Box 2167  
Hobbs, New Mexico

Anderson-Prichard Oil Corporation  
P.O. Box 196  
Midland, Texas

R. Olsen Oil Company  
Drawer Z  
Jal, New Mexico

Amerada Petroleum Corporation  
P.O. Box 312  
Midland, Texas

Tidewater Oil Company  
P.O. Box 547  
Hobbs, New Mexico

Atlantic Refining Company  
P.C. Box 871  
Midland, Texas

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 1-29-58

CASE 1374

Hearing Date 1-29-58 DSN 9am SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order authorizing the dual  
completion of Western Natural Gas Co.'s  
Wimberly No 3 Well in an undesignated  
Drinkard Oil Pool and an undesignated  
Fusselman Oil Pool. Use Std  
DC order

  
Staff Member

# ANDERSON-PRICHARD OIL CORPORATION

PRODUCERS  REFINERS

LIBERTY BANK BUILDING

OKLAHOMA CITY 2, OKLAHOMA

January 24, 1958

DUNCAN V. PATTY  
MANAGER, ECONOMICS AND  
EVALUATION DEPARTMENT

JAMES H. HENRY  
CHIEF RESERVOIR ENGINEER

*Case*  
*1374*  
*1375*

In Re: File No. 3154  
APOC Wimberly Lease  
SE NE Sec. 23-25S-37E  
Lea County, New Mexico

New Mexico Oil Conservation Commission  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Western Natural Gas Company has furnished us with copies of the Application for Permission to Dually Complete their Wimberly No. 3 and No. 4 wells located in Section 24-25S-37E, Lea County, New Mexico, in the Fusselman and Drinkard horizons.

Anderson-Prichard Oil Corporation as an offset operator has no objection to the proposed dual completions.

Yours very truly,

  
Duncan V. Patty

DVP:eg

cc: Western Natural Gas Company  
1006 Main Street  
Houston 2, Texas

Attention: Mr. R. H. McCoy  
Division Superintendent

EXAMINER HEARING  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 29, 1958

IN THE MATTER OF: Cases No. 1374 and 1375 - Consolidated

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES  
INCORPORATED  
GENERAL LAW REPORTERS  
ALBUQUERQUE, NEW MEXICO  
3-6691 5-9546

EXAMINER HEARING  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 29, 1958

IN THE MATTER OF:

Application of Western Natural Gas Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Wimberley No. 3 Well, located 660 feet from the North line and 660 feet from the West line of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from an undesignated Fusselman pool and oil from an undesignated Drinkard pool through parallel strings of tubing.

Case 1374

IN THE MATTER OF:

Application of Western Natural Gas Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Wimberley No. 4 Well, located 1980 feet from the North line and 990 feet from the West line of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from an undesignated Fusselman pool and oil from an undesignated Drinkard pool through parallel strings of tubing.

Case 1375

BEFORE: Mr. Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: We will proceed to Case 1374.

MR. COOLEY: Case 1374: Application of Western Natural Gas Company for a dual completion.

MR. WRIGHT: Paul Wright, Chief Engineer of Western Natural

Gas Company. We would like to ask that Cases 1374 and 1375 be consolidated.

MR. NUTTER: Since 1374 and 1375 are in substance for the same authority, they will be consolidated for the taking of testimony only, if there is no objection to such consolidation. They will be consolidated, then.

MR. WRIGHT: We have one witness, Mr. Wendell Cook.

(Witness sworn.)

WENDELL COOK

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

By MR. WRIGHT:

Q Mr. Cook, would you tell the Commission your name and your position with the company and your qualifications as a witness in this case?

A Wendell Cook, Division Petroleum Engineer, Western Natural Gas, Midland, Texas. I have B. S. degrees in Petroleum Engineering, Mechanical Engineering, Agricultural and Mechanical College of Texas, 1949. I was employed with Plymouth Oil Company for six years in various engineering capacities, mainly field petroleum engineer. One year with Reynolds Mining Corporation, Durango, Colorado, as a petroleum engineer.

Q You have a personal first-hand knowledge of the case here?

A Yes, I do.

MR. WRIGHT: Are his qualifications acceptable?

MR. NUTTER: He is qualified.

MR. WRIGHT: Since I am not an attorney, I would like for Mr. Cook to handle his own testimony and exhibits with the Commission's approval.

MR. NUTTER: Will Mr. Cook proceed?

A I will refer the Commission to Western Natural Gas' original application to dually complete the subject wells. I understand we are going to combine these two together?

MR. NUTTER: Yes, sir.

A Specifically, now, the Wimberley Well No. 3 -- have you got that before you?

MR. NUTTER: Yes, the Wimberley No. 3 is the subject well of Case 1374.

A Fine. It is located 660 feet from the north line, 660 feet from the west line of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico. Subject well was drilled to a total depth of 8635 feet; salt water was encountered on drill stem test in the Ellenberger formation. A 200 sack cement plug was spotted in open hole for 8550, 8,000 feet. A McCullough open hole bridge plug was set at 7400 feet off of wire line, ran seven inch casing to 7375 feet with cement back to 4195 on temperature survey; 13-3/8 casing set at 5027 and 9-5/8 intermediate string at 3400 feet. Cement circulating on both strings. Drill stem test of the Fusselman and Drinkard zones indicated commercial oil production from both zones.

(Applicant's Exhibit No. 1  
marked for identification.)

If it please the Commission, I would like to offer Exhibit No. 1, waivers from offset operators. I might add, Mr. Examiner, in that original application I want to refer to the plat of offset operators, also a schematic drawing of dual completion hookup.

MR. NUTTER: These exhibits are attached to the applications for hearing and will be incorporated in the record?

A Yes, and will be incorporated with the original application. Exhibit No. 1 I want to present, the waivers of the offset operators.

MR. NUTTER: The combined waivers of all the offset operators as Exhibit No. 1 in these cases will be admitted. Mr. Cook, are the offset operators the same for both of the cases?

A I believe that's correct, with possibly the exception of Amerada. Amerada is offset to the Wimberley 4, and I don't believe they are offset to the Wimberley 3, so that Amerada is the only one that is not common to both right here, and we have waivers from those, Mr. Examiner.

MR. NUTTER: Is Gulf common to both?

A No, no, they are not, that's right. Just Gulf and Amerada and also Anderson Pritchard, they are just common with the 3. I believe you have Anderson Pritchard here, we do not have it incorporated here, but it was understood that Anderson Pritchard's waiver was sent to the Commission here.

MR. NUTTER: Mr. Cook, would you go into some detail

describing the dual completion that is proposed for these two wells?

A. All right. Referring to the schematic diagram, Wimberley No. 3, the two zones in question, the Drinkard and the Fusselman, perforated with the drilling mud in the hole and the Baker Model "D" production packer, that is a Baker Model "D" retainer production packer set at 6980 off wire line. Then we went ahead with the completion of the lower zone, the Fusselman zone, that is, cleaning it up and acidizing, and I might add a Baker parallel string anchor with latching sub was set at 5990, the long string, the long string being two inch EUE tubing with turndown collars. The short string was anchored at 5999 for reasons of possibly pumping the Drinkard zone at a future date to extract all commercial saleable oil out of the Drinkard zone. The Drinkard zone then was cleaned up and acidized and shut in. We applied for an allowable on the Fusselman zone, and effective January 1st we were granted an 87 barrel per day allowable, I believe that's correct, on the Fusselman, with the Drinkard shut in.

The Baker Model "D" retainer is a seal tube which allows the operator to do any kind of wire line work for the Fusselman zone. It is a full opening seal tube standard, for standard dual completions. The latching sub that I mentioned is simply for tension in the secondary string; the short string to allow better efficiency as I stated, if we at a future date desire to pump the Drinkard zone. I believe that's all I have on the mechanics, the actual mechanics.

MR. NUTTER: Mr. Cook, would you tell what the gravity of the oil produced from each of the two zones is?

A From the Fusselman, 36.3 degrees API corrected. From the Drinkard 38.2 degrees API corrected.

MR. NUTTER: Could you tell me what the GOR from the two zones are, please?

A If it please the Commission, I would at this time like to incorporate Exhibit No. 2, the packer leakage test which has the oil and gas production.

(Applicant's Exhibit No. 2  
marked for identification.)

Exhibit No. 2, packer leakage test by disinterested third party, as Exhibit No. 2.

MR. NUTTER: This is from the Wimberley No. 3?

A Yes, the Wimberley No. 3, Case 1374. Mr. Examiner, I have it written here, the ratio of the Fusselman, 219 to 1.

MR. NUTTER: 219 cubic feet of gas?

A Per barrel of oil, and of the Drinkard, 1,010 to 1. Mr. Coleman in his test, there is not on that form -- if you will allow me a minute, I'll check that to be sure.

MR. NUTTER: The GOR's for the two zones are amended, Mr. Cook, to be 218 to 1 for the Fusselman?

A Yes, sir.

Q And 1025 to 1 for the Drinkard?

A Could we strike that now and let me -- just a minute.

MR. PORTER: Have those forms been submitted?

A No, this is the first test we have.

MR. PORTER: The original hasn't been submitted to our office?

A No.

MR. NUTTER: Well, are they amended, the GOR's?

A Yes. We are going to get this straight in a minute.

MR. NUTTER: What is the GOR for the Fusselman?

A 219 to 1. For the Drinkard, 1,010 to 1 as we originally had it there.

MR. NUTTER: Do you have the bottomhole pressures, Mr. Cook?

A Yes, sir. That will be Exhibit No. 3. Exhibit No. 3, bottomhole pressures, I'll give you that copy, and I have a copy here. You have a little more gas with the upper zone.

MR. NUTTER: Exhibit 3 will be the --

A (Interrupting) Exhibit 3 will be the bottomhole pressures.

MR. NUTTER: For the Wimberley No. 3 well?

A For the Wimberley No. 3 well.

MR. NUTTER: That will be so identified.

(Applicant's Exhibit No. 3  
marked for identification.)

A That is the Drinkard. Here is the Fusselman, Mr. Examiner.

MR. NUTTER: Bottomhole pressure on the Drinkard formation has been identified as Exhibit No. 3. The bottomhole pressure for the Fusselman will be identified as Exhibit No. 4.

(Applicant's Exhibit No. 4  
marked for identification.)

MR. NUTTER: What would those bottomhole pressures be?

A On the Drinkard at 5897 feet for subsea datum of minus 2800 feet, bottomhole pressure of 2610 pounds. On the Fusselman at 6997 feet, for subsea datum of minus 3900 feet, bottomhole pressure of 2806.

MR. NUTTER: Mr. Cook, do you think that the two bottomhole pressures of these two separate zones have enough variation between them to cause any damaging strain on the packer that's separating the two zones?

A I don't believe so, Mr. Examiner. There is only 200 pounds in 1100 feet there, and that is not enough to cause any kind of damaging effect.

MR. NUTTER: Is the Baker Model "D" retainer production packer designed to withstand that much pressure differential?

A Yes, sir. It is my understanding as high as four or five thousand pounds.

MR. NUTTER: Do you believe there is sufficient difference in the GOR to detect the leakage through the packer in GOR readings for the two separate zones?

A Future production of the well may alter physical characteristics where you may not effectively tell packer leakage by GOR, I think possibly actual drawdown, in observing the alternate pressures on the continuous reading chart as we have done, by disinterested third party there.

MR. NUTTER: Would a drastic change in GOR possibly reflect

a leak through the packer?

A Not necessarily.

MR. NUTTER: What means do we have of observing a leak if such should occur in the packer?

A We, of course, will run our semi-annual or annual surveys of bottomhole pressures, plus our drawdown of one zone by continuous reading of the chart on the other zone, which would indicate any kind of communication.

MR. NUTTER: This can be done on a constant basis?

A Oh, yes, sir, definitely on a regulated basis. I might add, Mr. Examiner, there is a dually completed well by Tidewater two locations away to the east in the Drinkard and McKee.

MR. NUTTER: To your knowledge, has Tidewater encountered any difficulties with the dual completion in this pool?

A Only mechanically speaking. They're pumping the Drinkard as of now, but as far as that goes, no packer leakage; whereas we are flowing both zones, they are pumping the upper zone.

MR. NUTTER: Can both zones in the Wimberley No. 3 dual completion be pumped if necessary?

A Yes, sir.

MR. NUTTER: Would you proceed to your Wimberley No. 4 well, please, and describe the mechanical dual completion?

A I might add one more thing. We have separate flow lines, separate separators and separate tank batteries for each production.

MR. NUTTER: So the oil will be segregated in the well bore

as well as on the surface?

A Yes, sir.

MR. NUTTER: Until after it is measured?

A That is true.

MR. NUTTER: Do you have anything further on Well No. 3?

A I believe that's all.

MR. NUTTER: Would you proceed to Well No. 4, then, please?

A I would refer you to the application dated January 8, 1958; Western Natural Gas Company's Wimberley No. 4 will be located 1980 feet from the north line and 990 feet from the west line of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico. The well will have 13 - 3/8 inch surface casing, 9 and 5/8 inch intermediate casing, and 7 inch production casing; and I refer the Commission at this time to the attached plat and schematic diagram on that application.

MR. NUTTER: The schematic diagram and the plat are incorporated in the record?

A Yes. We propose to perforate the 7 inch casing opposite the Drinkard zone from 5925 to 5965 feet. This zone was found to be productive of oil on drill stem test in our Wimberley No. 3, located 1320 feet north. We propose to perforate the 7 inch casing opposite the Fusselman from 7,000 feet to 7,050 feet. Also this zone was found oil productive during completion test, also drill stem test on our No. 3. The two zones will be separated within the well bore per our attached diagram. All tests will be conducted

on the 4 as were conducted on the 3.

Baker Model "D" retainer production packer will be set off of wire line at 6975. We shall have a Baker parallel string anchor the latching sub at 6,030 feet. The mechanics are essentially the same as in the No. 3.

I might add that the Wimberley No. 4 is in the process of being drilled at this time.

MR. NUTTER: Is that all?

A That's all.

MR. NUTTER: Does anyone have any questions of Mr. Cook? Mr. Cook, neither the Drinkard zone or the Fusselman zone has been penetrated or tested in the Wimberley No. 4 yet?

A No, sir.

MR. NUTTER: Do you anticipate that the conditions will be similar in the No. 4 as were encountered in the No. 3 Well?

A According to our geological department, they will be the same.

MR. NUTTER: Do you expect similar bottomhole pressures in this well?

A Yes, sir.

MR. NUTTER: Is the Baker Model "D" production packer to be installed in this well capable of withstanding the differential in pressures that you anticipate in the two zones?

A Yes, sir.

MR. NUTTER: Do you think that the GOR in the two zones will be similar to those in the No. 3 Well?

A Yes, sir, I do.

MR. NUTTER: Do you think the gravities of the two zones will be similar?

A I do.

MR. NUTTER: Will each of these zones be capable of being pumped if necessary?

A Yes, sir.

MR. NUTTER: Does anyone have any questions of Mr. Cook? Mr. Porter.

MR. PORTER: To your knowledge, Mr. Cook, are there any wells producing from the Drinkard in this area, say, within a mile of this well?

A The nearest that I am acquainted with is the Tidewater.

MR. PORTER: Tidewater has a pumper?

A It has a pumper on the dual completion on the Coates No. 8.

MR. PORTER: But no pool has been established?

A No pool designated, no, sir.

MR. PORTER: That is all.

MR. NUTTER: Any further questions of Mr. Cook? If not, he may be excused.

(Witness excused.)

MR. WRIGHT: That's all we have.

MR. NUTTER: Do you want to enter the exhibits?

MR. WRIGHT: Yes.

MR. NUTTER: Without objection, the exhibits of Western Nos. 1 through 4 will be admitted in these cases.

MR. NUTTER: We have received letters waiving objection from R. Olsen Oil Company; however, copies of these letters were a part of Exhibit No. 1. We have also received a letter from Anderson Pritchard Oil Company in these cases.

MR. COOLEY: The Commission has received correspondence from Anderson Pritchard Oil Corporation, Oklahoma City, Oklahoma, as follows: "Western Natural Gas Company has furnished us with copies of the application for permission to dually complete their Wimberley No. 3 and No. 4 wells located in Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in the Fusselman and Drinkard horizon. Anderson Pritchard Oil Corporation as an offset operator has no objection to the proposed dual completion." Signed, Very truly yours, Duncan Patty.

MR. NUTTER: Is there anything further in Cases No. 1374 and 1375? If nothing further, we will take the cases under advisement.

\* \* \* \* \*

## C E R T I F I C A T E

STATE OF NEW MEXICO     )  
                                   ) ss  
 COUNTY OF BERNALILLO    )

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 14<sup>th</sup> day of February, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley  
 NOTARY PUBLIC

My commission expires:

June 19, 1959.

I do hereby certify that the foregoing is a complete record of the proceedings in the Enforcement hearing of Case No. 1374-1376 heard by me on 1-29, 1958.

James H. Swann Examiner  
 New Mexico Oil Conservation Commission



PETROLEUM AND ITS PRODUCTS

# GULF OIL CORPORATION

P. O. BOX 669 — ROSWELL, NEW MEXICO

FORT WORTH  
PRODUCTION DIVISION

W. A. SHELLSHEAR  
DISTRICT MANAGER  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
EXHIBIT No. 1  
CASE 1374 and 1375

January 21, 1958

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Gentlemen:

This is to advise that Gulf Oil Corporation has been given due notice that Western Natural Gas Company has made application for permission to dually complete their No. 3 Wimberley in the Fusselman and Drinkard Formations. We hereby waive any objection to the granting of permission to dually complete their well at the following location:

660' from the north line and  
660' from the west line of  
Section 25, T-25S, R-37E, Lea  
County, New Mexico.

Executed this 21st day of January, 1958.

Yours very truly,  
GULF OIL CORPORATION

BY:

*W. A. Shellshear*  
W. A. SHELLSHEAR  
DISTRICT MANAGER

Ex 1 waivers Test #3  
Ex 2 Pler Rly #3 DV  
Ex 3 BHP #3  
Ex 4 BHP #3 Fuss.

R. OLSEN OIL COMPANY

2805 LIBERTY BANK BUILDING

OKLAHOMA CITY, OKLA.

January 17, 1958

CARL E. OLSEN,  
PRESIDENT  
PHILIP RANDOLPH,  
VICE PRESIDENT  
JACK L. NEVILLE,  
TREASURER

Western Natural Gas Company  
823 Midland Tower Building  
Midland, Texas

Attention: Mr. R. H. McKoy

Gentlemen:

Please consider this as a waiver of any objections to the dual completion of your Wimberley #3 well located 660' from the North line and 660' from the West line of Section 24-25S-37E, subject dual completion to be in the Drinkard and Fusselman formations.

Very truly yours,

R. OLSEN OIL COMPANY

By

  
Philip Randolph

PR:if

cc: Mr. Olsen  
Mr. Neville

**THE ATLANTIC REFINING COMPANY**

**PETROLEUM PRODUCTS**

**DALLAS, TEXAS**

DOMESTIC PRODUCING DEPARTMENT

**January 23, 1958**

ADDRESS REPLY TO:  
P. O. BOX 6640  
ROSWELL, NEW MEXICO

Western Natural Gas Company  
823 Midland Tower Building  
Midland, Texas

ATTENTION: Mr. R. H. McKoy

Gentlemen:

The Atlantic Refining Company hereby waives objection to the proposed Drinkard-Fusselman dual completion of the Western Natural Gas Company's Wimberley No. 3 Well located 660' from the North line and 660' from the West line of Section 24, T-25S, R-37E, Lea County, New Mexico.

Yours very truly,

THE ATLANTIC REFINING COMPANY



R. E. Howard,  
Regional Petroleum Engineer



**TIDEWATER OIL COMPANY**

POST OFFICE BOX 731  
TULSA 2, OKLAHOMA

H. E. BERG  
MANAGER OF PRODUCTION  
CENTRAL DIVISION

January 24, 1958

Western Natural Gas Company  
823 Midland Tower Building  
Midland, Texas

Attention: Mr. R. H. McKoy

Gentlemen:

In answer to your letter of January 7, 1958, please be advised that Tidewater Oil Company has no objection to your plan of dually completing Wimberley No. 3, located in Section 24-25S-37E, Lea County, New Mexico, in the Fusselman and Drinkard reservoirs.

Very truly yours,

H. E. Berg

HEB:hm

cc: Mr. J. G. Wesberry  
Tidewater Oil Company  
P. O. Box 1231  
Midland, Texas

AMERADA PETROLEUM CORPORATION  
P. O. BOX 512  
MIDLAND, TEXAS

January 27, 1958

Oil Conservation Commission  
Santa Fe, New Mexico

Re: Western Natural Gas Co. Wimberly  
No. 3, Proposed Dual Completion

Gentlemen:

The undersigned, being an authorized representative of the offset operator, has been duly informed by Western Natural Gas Company of their intention to dually complete their Wimberly No. 3 in the Drinkard and Fusselman formations of an undesignated pool, and hereby waives all objections to the granting of a permit for this purpose.

The well is located 660' from the north line and 660' from the west line of Section 24, T-24-S, R-37-E, Lea County, New Mexico.

Yours very truly,

AMERADA PETROLEUM CORPORATION

  
J. C. Blackwood

JCB/pe

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

**EXHIBIT NO.**

Pre-Test Shut-In

Flow Test No. 1

219/1

### Mid-Test Shut-In

Flow Test No. 2

REMARKS: Test results indicate that the two producing zones are separated properly.

**AFFIDAVIT:**

(COVER)

INSTRUCTIONS  
(SOUTHEAST NEW MEXICO ONLY)

1. At least 24 hours prior to the commencement of this test, the operator shall notify the District Office of the Oil Conservation Commission in writing of the exact time said test is to be commenced.
2. The packer leakage test shall commence with both sides of the completion shut-in. Both sides of the completion must be shut-in a sufficient length of time to allow for complete stabilization of both wellhead pressures, and for a minimum of 2 hours thereafter- this minimum of 2 hours shut-in must show on the charts of the pressure recorder and also must appear on the data sheet.
3. For Flow Test No. 1, one side of the dual completion shall be produced with the other side shut-in. Such test shall be continued until the flowing wellhead pressure has become stabilized and for a minimum of 2 hours thereafter, and shall be at a rate of flow approximating the normal rate of flow for the zone being produced.
4. Following the completion of flow test No. 1, the well will again be shut-in, and remain so until the wellhead pressures have again become stabilized and for a minimum of 2 hours thereafter.
5. Flow Test No. 2 shall be performed with the previously shut-in side of the dual completion flowing and with the flowing side of the completion used in test number 1 remaining shut-in. This test shall be conducted exactly as outlined under Flow Test No. 1, and must be performed even though no leak was indicated by Flow Test No. 1.
6. All pressures, throughout the entire test, must be continuously measured and recorded with recording pressure gauges.
7. The accuracy of the recording gauges shall be checked at regular intervals throughout the test with a dead weight test gauge, and such readings shall be recorded on the test data sheet provided.
8. For any well on which the wellhead pressures will not stabilize in (24) twenty four hours or less, the minimum producing or shut-in time allowed for stabilization shall be (24) twenty-four hours.
9. This form must be completed and filed in duplicate with the District Office of the Oil Conservation Commission within 15 days following the completion of the testing, and must be accompanied by:
  - a. all of the charts, or copies thereof, used on the pressure recorders during the test.
  - b. the test data-sheet (s), or copies thereof, required under paragraph 7 above.
  - c. a graph depicting the pressures and their changes, for both sides of the completion over the entire test.
10. This packer leakage test shall be performed upon dual completion of any new wells so approved by the Commission. This test shall also be required each year during the annual GOR test for the lowermost oil zone or oil pool so concerned. The Commission may also request packer leakage tests at any time they feel that a new test is desirable.

NEW MEXICO  
OIL CONSERVATION COMMISSION

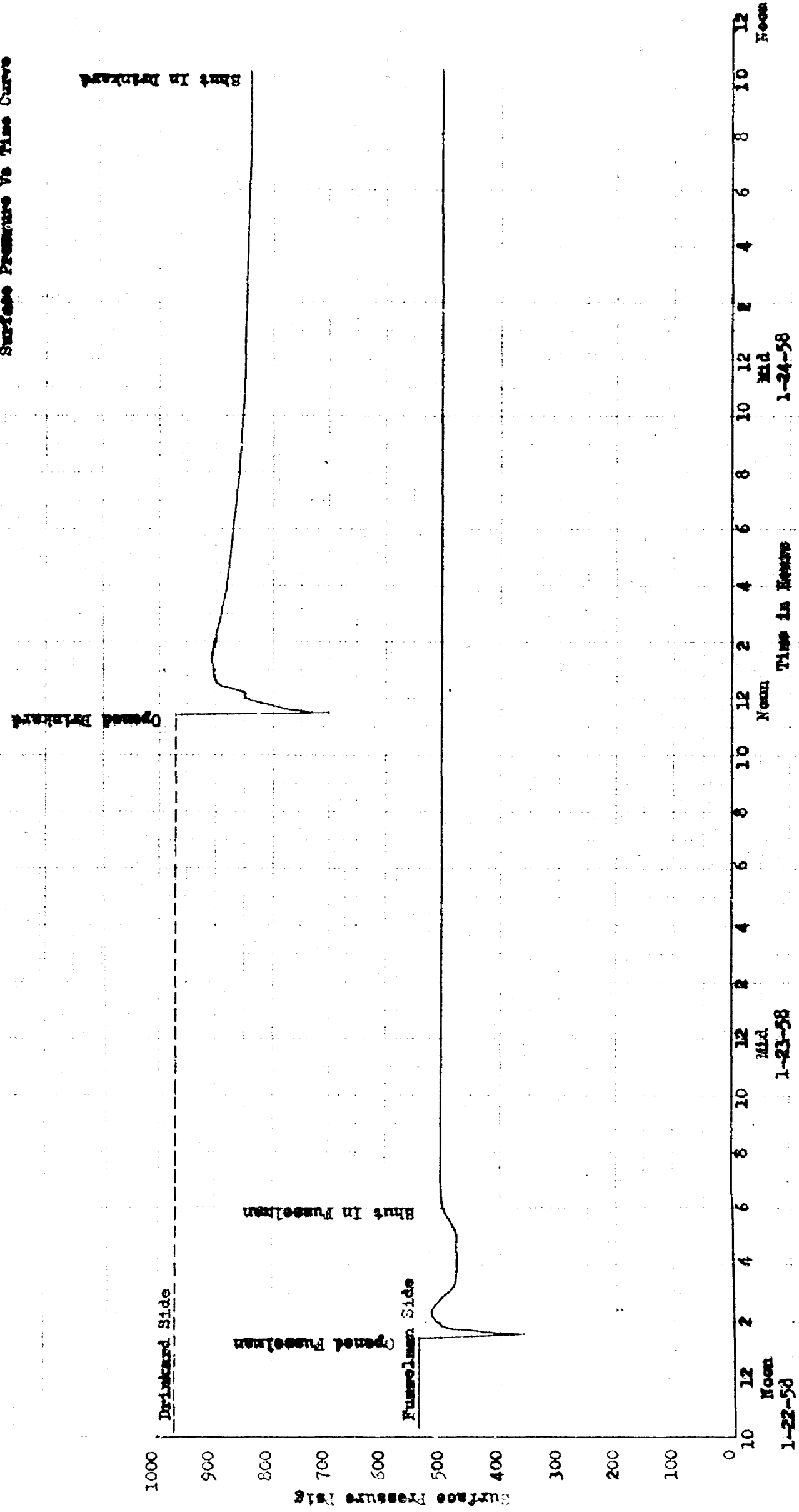
### PACKER LEAKAGE TEST

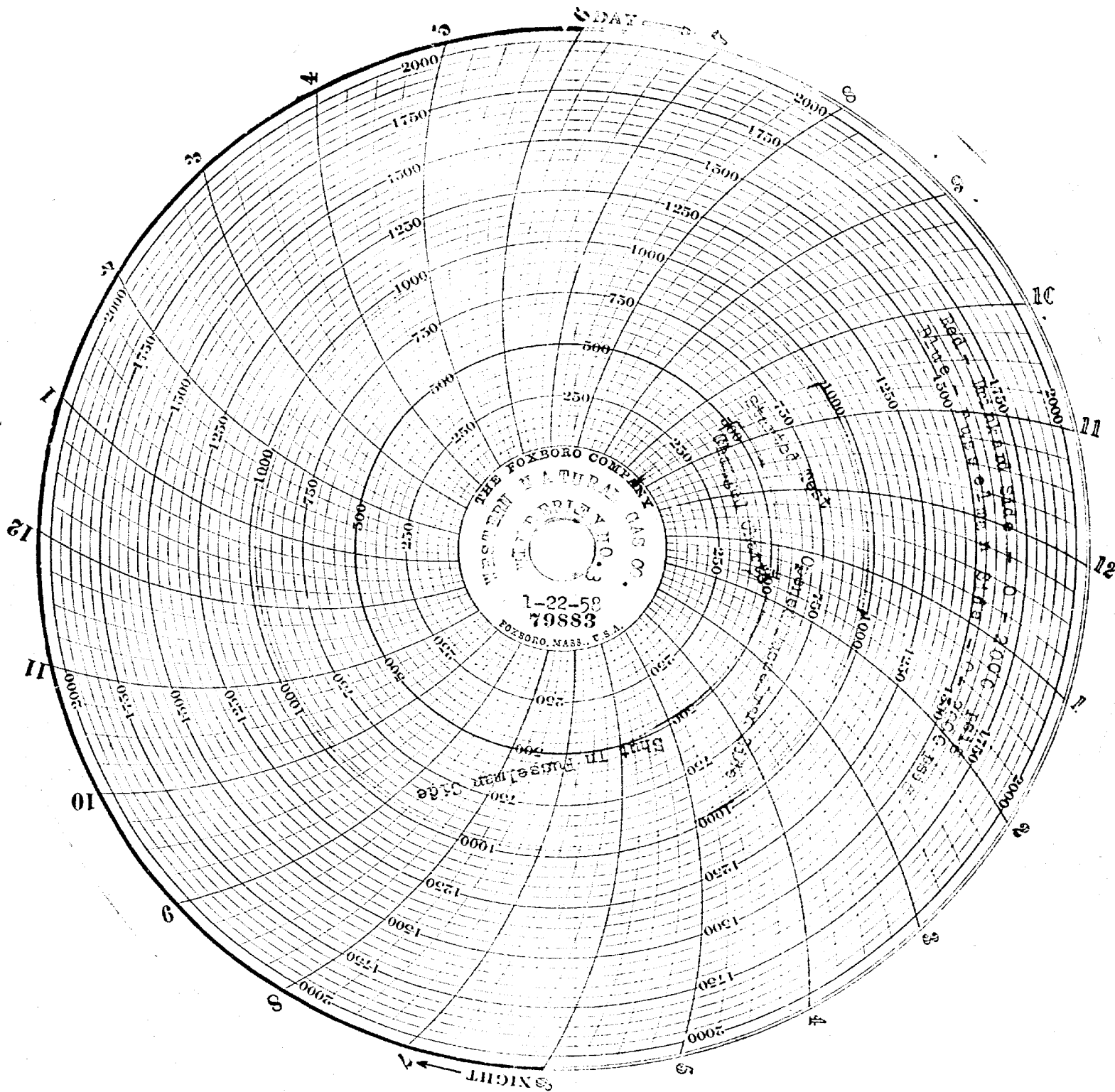
OPERATOR	Western Natural Gas Company			WELL NO.	3
LEASE NAME	Wimberley			COUNTY	Lee
LOCATION	NW/4	NW/4	24-25-37		

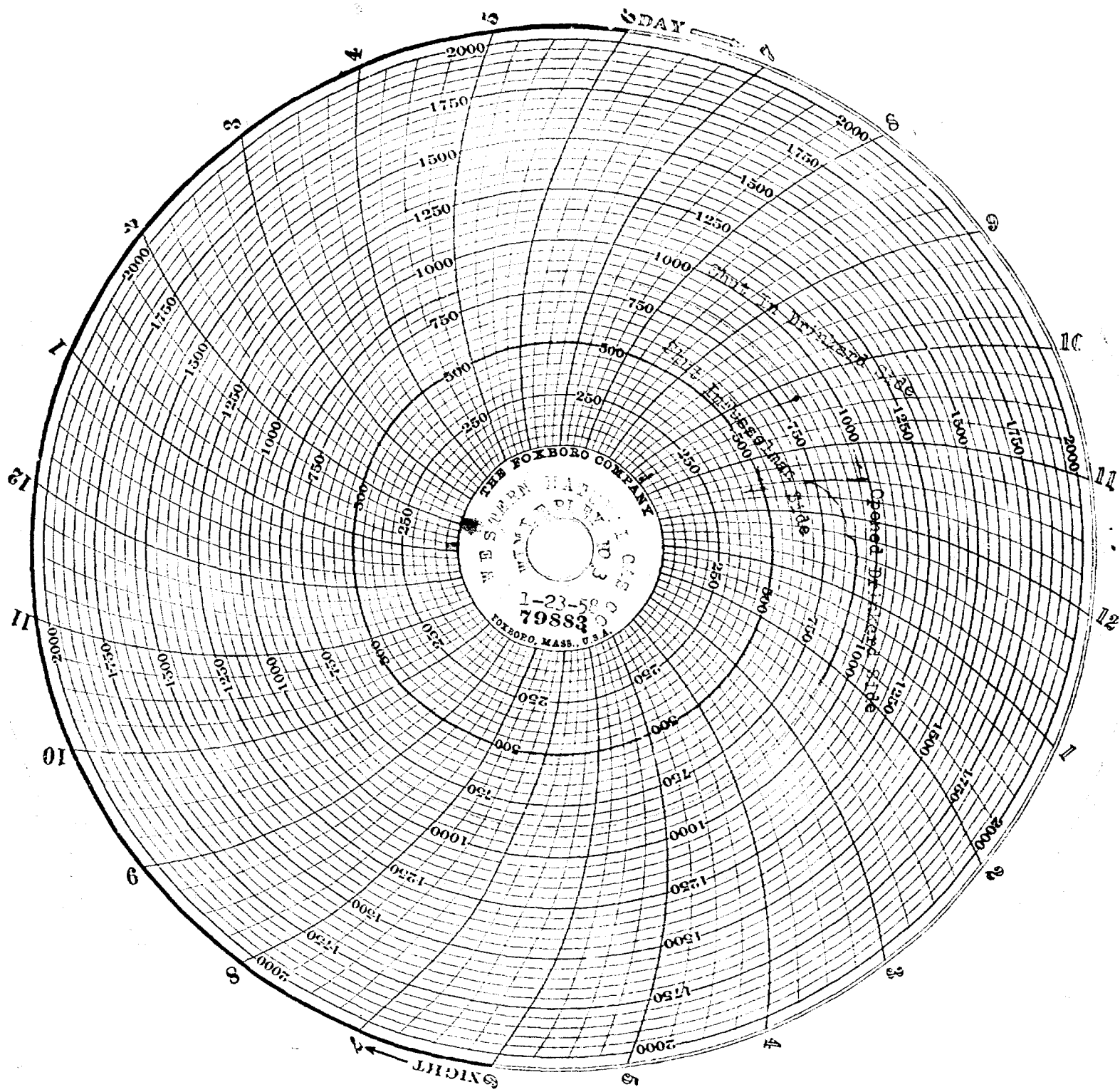
# TEST DATA SHEET

<u>Time</u>	<u>Fusselman Pressure</u>	<u>Drinkard Pressure</u>	<u>Remarks</u>
	(1-15-58)		
9:30 PM	-	-	Both sides shut in for Packer Leakage test.
	(1-22-58)		
10:30 AM	519 DWT	933 DWT	Hooked up meter and started stabilized shut in period.
11:30	519	933	
1:30 PM	519	933	Finished 2 hour minimum stabilized period and opened Fusselman side for flow test.
3:15	458	933	Started 2 hour stabilized flow period.
4:15	457	933	
5:15	456	933	Finished 2 hour stabilized flow period and shut Fusselman side in for build up.
	(1-23-58)		
9:30 AM	482	933	Started 2 hour stabilized shut in period.
10:30	482	933	
11:00	482	933	Changed Chart.
11:30	482	933	Finished 2 hour stabilized shut in period and opened Drinkard side up for flow test.
	(1-24-58)		
8:00 AM	482	790	Started 2 hour stabilized flow period.
9:00	482	790	
10:15	482	790	Finished 2 hour stabilized flow period.
			Test Complete

WESTERN NATURAL GAS COMPANY  
 Winkelman, Well No. 3  
 Undesignated - Drinkard-Fusselman (L-2)  
 Lea County, New Mexico  
 Surface Pressure Vs Time Curve









# AMERICAN PETROLEUM INSTITUTE LOGGING COMPANY

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

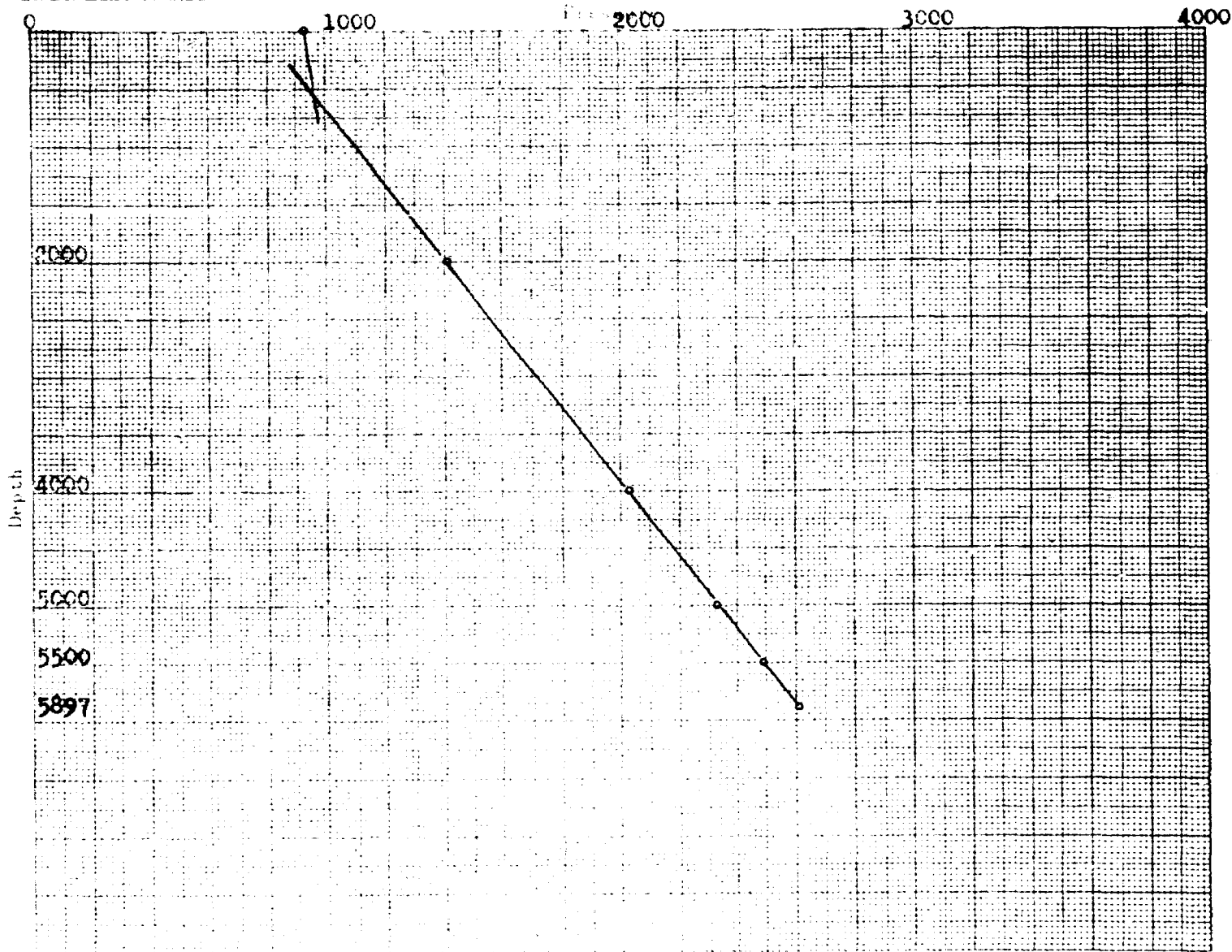
EXHIBIT No. 3  
1374-75

CASE 1374-75  
BOTTOM HOLE PRESSURE RECORD

PHONE EXPRESS 3-3813  
CIT GRIMES  
P. O. BOX 1825  
HOBBS NEW MEXICO

OPERATOR Western Natural Gas Company  
FIELD Undesignated  
LEASE Wimberley  
COUNTY Lea STATE New Mexico  
DATE 1-22-58 TIME 9:45 AM  
Status Shut in Test depth 5897'  
Time S. I. 7 days Last test day Initial  
Tub. Pres. 933 DWT BHP 2610  
Gas Pres. Dual PIP 2610  
Elev. 3097' KB Fluid 500'  
Datum (-2800') Water top None  
Temp. 100° F Run by Bland  
Cpl. No. M-61-1 Chart No. 2

Depth	Pressure	Gradient
0	933	-
2000	1411	.239
4000	2025	.307
5000	2332	.307
5500	2487	.309
5897 (-2800')	2610	.309





# COLORADO PETROLEUM ENGINEERING COMPANY

PHONE EXPRESS 3-3813  
E. J. GRIMES  
P. O. BOX 1825  
HOBBS, NEW MEXICO

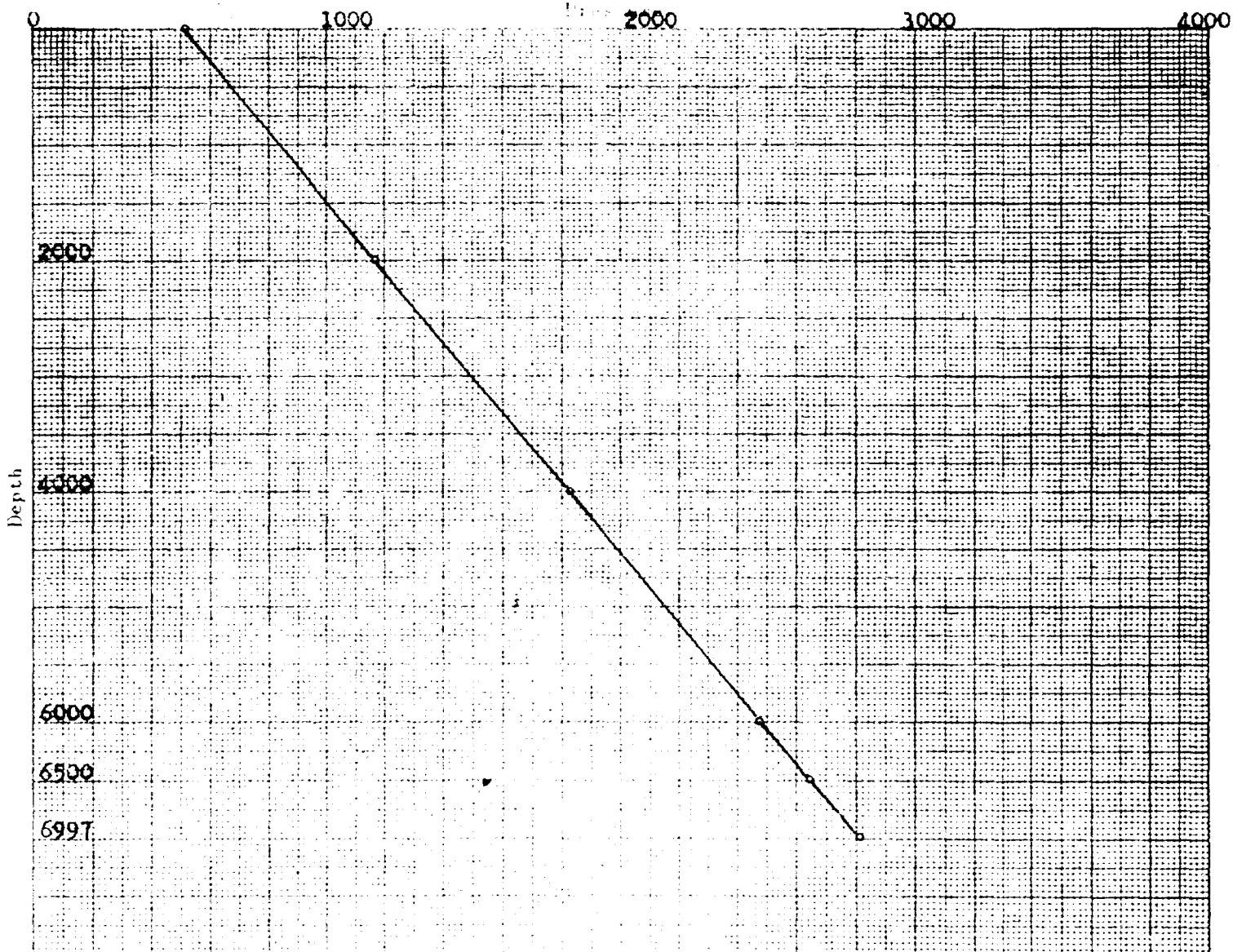
BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

EXHIBIT No. 4  
1374-75

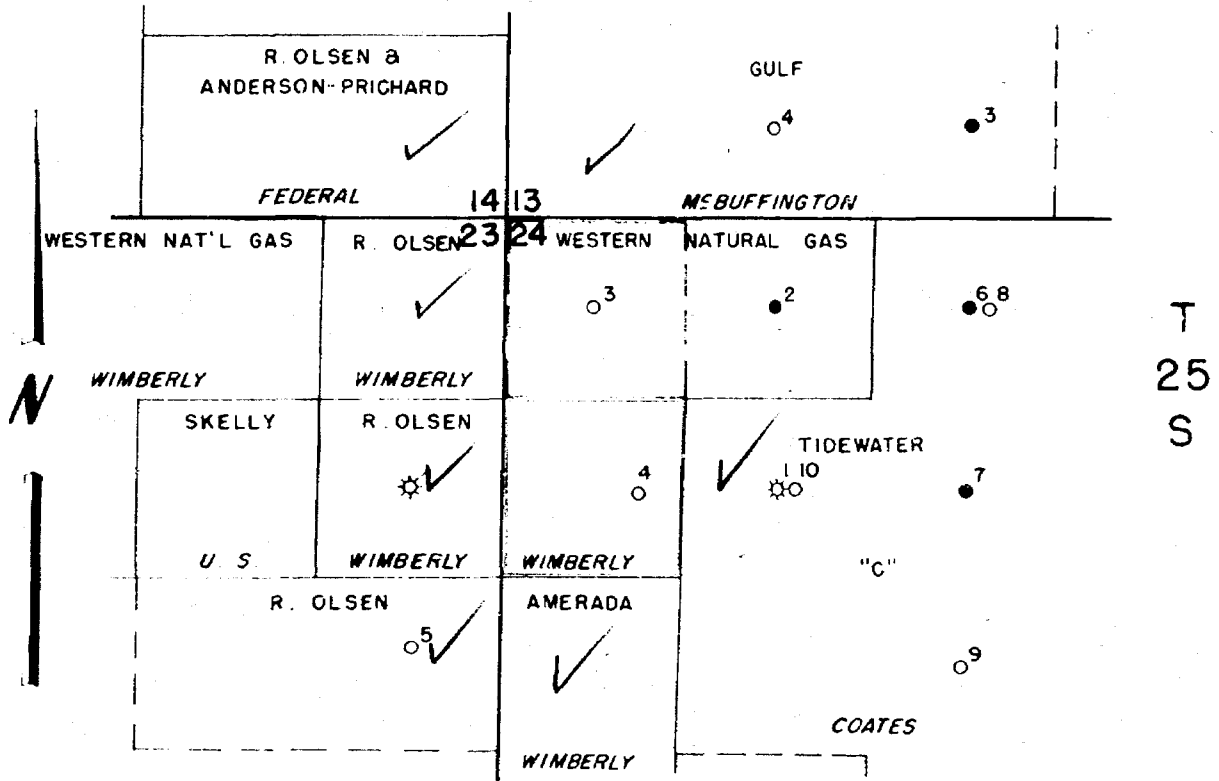
## WELL PRESSURE RECORD

OPERATOR PenitCASE Natural Gas Company  
FIELD Undesignated PenitCASE  
LEASE Timberley Well # 3  
COUNTY Lea STATE New Mexico  
DATE 1-22-58 TIME 9:00 AM  
Status Shut In Pressure 6997'  
Time S. I. 7 days Initial  
Tub. Pres. 512 DWTPH -  
Cas. Pres. Dual BHP -  
Elev. 3097' KB Fluel top Tree  
Datum (-3900') Water None  
Temp. 110° F Rom Bland  
Cgl. No. M-6-1-1 Chart No. 1

Depth	Pressure	Gradient
0	519	-
2000	1169	.325
4000	1825	.328
6000	2479	.327
6500	2643	.327
6997 (-3900')	2806	.328



R 37 E



BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
EXHIBIT No. \_\_\_\_\_  
CASE \_\_\_\_\_

LEA COUNTY  
NEW MEXICO